(5) SUMMARY OF CLAIMED SUBJECT MATTER

The following listing of Independent Claims 1, 12, 13, 16, 26 and 31 with references to the specification by page and line number summarize the claimed subject matter:

Independent Claim 1: A device for performing surgery or therapeutic interventions on a patient, comprising:

a first non-invasive curvature sensor configured to be placed externally on a patient (*Appl. page 18, lines 28-3; Appl. page 19, lines 5-6*), the first non-invasive curvature sensor providing first external curvature data (*Appl. page 19, lines 9-10*);

imageable fiducials coupled to the first non-invasive curvature sensor (*Appl. page 18, line 18; Appl. page 19, lines 5-6*); and

an attachment fixture coupled to the first non-invasive curvature sensor (Appl. *page 18, line. 29*); and

a computer (*Appl. Page 19, lines 9-13*) configured to receive the first external curvature data and relate the curvature of the first non-invasive curvature sensor to: the location of the imageable fiducials; and a 3-D internal image set of the patient (Appl. page *18, lines 27 to page 19, line 6; FIG. 8A, elements 800 & 805).*

Independent Claim 12: A device for performing surgery or therapeutic intervention on a patient, comprising:

an attachment fixture (*Appl. page 18, line 29*);

at least one imageable fiducial coupled to the attachment fixture (*Appl. page*

18, line 29; Appl. page 19, lines 5-6), the imageable fiducial being capable of being

detected by a medical imaging system (*Appl. page 18, line 31*);

a non-invasive curvature sensor having a first end and a second end and

capable of being coupled to the attachment fixture at the first end, the non-invasive

curvature sensor configured to be placed externally on a patient, the non-invasive

curvature sensor configured to provide external curvature data (*Appl. page 18, lines

28-31; Appl. page 19, lines 5-6*);

a tool connector coupled to the second end of the non-invasive curvature

sensor (*Appl. page 15, lines 9-11*); and

a computer configured to receive the external curvature data and relate the

curvature of the first non-invasive curvature sensor to: the location of the imageable

fiducials; and a 3-D internal image set of the patient (*Appl. page 15, lines 15-21;

Appl. page 18, lines 27-28*).

Independent Claim 13: A device for use in an image guided therapy or image guided

surgery system, comprising:

a non-invasive curvature sensor configured to be applied externally to a portion

of a patient (*Appl. page 18, lines 28-3; Appl. page 19, lines 5-6*), the non-invasive

curvature sensor being adapted to measure and provide external curvature data

(*Appl. page 19, lines 9-10*);

imageable fiducials located on the non-invasive curvature sensor (*Appl. page

18, line 18; Appl. page 19, lines 5-6*);

an attachment fixture coupled to the non-invasive curvature sensor (Appl. *page 18, line 29)*, the attachment fixture comprising an imageable fiducial; and

a computer (*Appl. Page 19, lines 9-13)* configured to receive the external curvature data and relate the curvature of the non-invasive curvature sensor to: the location of the imageable fiducials; and a 3-D internal image set of the patient (Appl. page *18, lines 27 to page 19, line 6; FIG. 8A, elements 800 & 805)*.

Independent Claim 16: A device for generating a patient based frame of reference for an image guided therapy or image guided surgery system (Appl. page *9, lines 12-15, lines 26-27; Appl. page 20, line 5-7)*, comprising:

a non-invasive curvature sensor configured to be applied externally to a portion of a patient (*Appl. page 18, lines 28-3; Appl. page 19, lines 5-6)*, the non-invasive curvature sensor being adapted to measure and provide external curvature data of the curvature of the portion of the patient (*Appl. page 19, lines 9-10)*;

imageable fiducials coupled to the non-invasive curvature sensor (*Appl. page 18, line 18; Appl. page 19, lines 5-6)*; and

an attachment fixture coupled to the non-invasive curvature sensor at a known position with respect to the non-invasive curvature sensor (Appl. *page 18, line. 29)*; and

a computer (*Appl. Page 19, lines 9-13)* configured to receive the external curvature data and relate the curvature of the non-invasive curvature sensor to: the location of the imageable fiducials; and a 3-D internal image set of the patient (Appl. page *18, lines 27 to page 19, line 6; FIG. 8A, elements 800 & 805)*.

Independent Claim 26: A system for monitoring or enabling surgery on a patient at a

distance (Appl. page *7, lines 4-5; Appl. Page 27, lines 14-15*), comprising:

a first non-invasive curvature sensor configured to be placed externally on the

patient (*Appl. page 18, lines 28-3; Appl. page 19, lines 5-6*), the first non-invasive

curvature sensor providing first external curvature data (*Appl. page 19, lines 9-10*);

imageable fiducials coupled to the first non-invasive curvature sensor (*Appl.*

page 18, line 18; Appl. page 19, lines 5-6);

an attachment fixture attached to the first non-invasive curvature sensor (Appl.

page 18, line. 29);

a second non-invasive curvature sensor having a first end and a second end

and capable of being coupled at the first end to the attachment fixture, the second

non-invasive curvature sensor providing second external curvature data (Appl. *page*

13, lins 3-8);

a tool capable of being coupled to the second end of the second non-invasive

curvature sensor (Appl. *page 13, line 7*); and

a computer configured to:

receive the first external curvature data (Appl. *page 14, lines 14-15*);

receive the second external curvature data (Appl. *page 14, lines 14-*

15);

relate the curvature of the first non-invasive curvature sensor to: the

location of the imageable fiducials (Appl. *page 14, lines 15-17*); and a 3-D

internal image set of the patient (Appl. *page 14, line 16*);

provide an output of the curvature of the first non-invasive curvature

sensor and the position and orientation of the tool coupled to the second

end of the second non-invasive curvature sensor with respect to the

attachment fixture (Appl. *page 14, lines 16-18*); and

communicate the output of the computer to a distant receiver using a

communication device that is electronically coupled to the computer (Appl.

page 27, lines 3-8).

Independent Claim 31: A device for conducting surgery or therapy on a body,

comprising:

means for externally measuring the curvature of a body (*Appl. page 18, lines

28-3; Appl. page 19, lines 5-6*);

means for locating the position of the means for externally measuring the

curvature of a body within a frame of reference (*Appl. page 14, line 20 to page 15,

line 5*);

means for determining the position of a tool with respect to the means for

externally measuring the curvature of a body (*Appl. page 10, lines 17-21*); and

means for registering a 3-D internal image set of the body to the means for externally

measuring the curvature of a body (*Appl. page 18, lines 27 to page 19, line 6; FIG. 8A,

items 800 & 805*).